

WITHDRAWN CLAIM REJECTIONS

Applicants acknowledge the Examiner's withdrawal of the rejection of claims 1-12, 14-18 and 48-50 under 35 U.S.C. § 102 as anticipated by Pieniak (U.S. Patent 5,098,423) and of claims 1-12, 14-18 and 48-50 under 35 U.S.C. § 102 as anticipated by Kielpikowski (6,056,733). Office Action at page 2.

THE PRESENT INVENTION

Pending independent claims 1 and 48 recite: "the composite having a maximum elongation of at least about 85% of the elongation of the elongated elastic member" (hereinafter referred to as the "at least about 85% claim limitation").

The present invention pertains to, among other things, a stretchable composite material comprising one or more elongated elastic members located between a first layer and a second layer, wherein the composite material has a maximum elongation of at least about 85% *of the elongation of one or more of the elongated elastic members*. E.g., Specification at 22 (claim 1); page 1, line 23 – page 2, line 9; page 4, lines 2 – 29; page 6, line 22 – page 7, line 10.

The "at least about 85%" claim feature refers to the maximum elongation of the composite material as a percentage of the elongation of the elastic member captured in the composite material, not simply to the percent elongation of the composite material.

The 'at least about 85%' claim feature does *not* refer to merely the elongation of the composite material. Applicants respectfully point out that the claim feature "the composite having a maximum elongation of at least about 85% of the elongation of an elastic member" of the present invention refers to a relationship between (1) the elongation of the *composite material* and (2) the elongation of the *elongated elastic member(s)* that were incorporated in that composite material. That is, the 'at least about 85%' claim feature refers to a composite material of the present invention where the maximum composite elongation is at least about 85% of the elongation of the component elastic member(s) incorporated into that composite.

The specification teaches (for example at page 6, line 27 – page 7, line 10) that the composite materials of the instant invention allow for a greater use of the elongation of one or

more of the elastic members initially incorporated into the composite material (the initial elongation), to produce composite materials that have a maximum elongation that is at least about 85% of the initial elongation of one or more of the elastic members located between the first and the second layers of the composite material. *See, e.g.*, specification at pages 6 and 7.

For example, if an elastic member under 250% elongation (i.e., elongation of the elongated elastic member) is captured between a first and a second layer to produce a composite material of the present invention and the composite material then allowed to retract to a resting state, then the composite material would have a maximum elongation of at least 212.5% (i.e., composite elongation) relative to the retracted “resting” state of the composite material – which corresponds to a maximum composite material elongation that is 85% of the elongation of the elastic material incorporated into the composite layer (i.e., the 212.5% composite elongation being at least about 85% of the 250% elongation of the initial elongated elastic member). Specification at page 6, line 27- page 7, line 10.

The Office Action improperly construes the “at least about 85%” claim feature.

The Office Action improperly construes the claim feature “the composite having a maximum elongation of at least about 85% of the elongation of the elastic member” by conflating the maximum elongation of the *composite* and the elongation of the *elongated elastic members*. Accordingly, the Office Action does not clearly identify: (1) the elongation of a component elastic member incorporated in the composite structure and (2) the subsequent, separate elongation of the composite multilayer structure from an un-stretched (relaxed) state to maximum extension.

The Office Action suggests that the recitation of “at least about 85%” in the claims of the instant invention refers to the elongation of the composite material by referring to the stretching of a prior art composite material without reference to the percent elongation of a component elastic member. At page 4 (lines 4-5), the Office Action notes that U.S. Patent 3,371,668 to Johnson (“Johnson”) teaches “elastic strands in the laminate [that] have been tensioned sufficiently during manufacture to permit 100% extension of the finished fabric....” Similarly, the Office Action states at page 9 (line 15) that, “[i]t is desirable to have a high maximum elongation, such as 85% or higher....”

The Office Action also states, with respect to the Vander Wielen reference (i.e., U.S. Patent No. 4,720,415 to Vander Wielen et al. or “Vander Wielen”):

Vander Wielen further discloses that the stretchable composite material elongation is dependent on the amount the elastic web is stretched, i.e. if it is desired to prepare a composite material stretchable to 100 percent elongation, a 100 cm length of elastic web may be stretched to a length of, for example 220 cm (120 percent elongation) and bonded at spaced-apart locations to a 220 cm length of non-elastic material. See column 9, lines 24-60 [of Vander Wielen]. Office Action at page 9; Office Action at page 10.

The Office Action misconstrues the “at least about 85%” limitation by confusing the percent elongation of the composite material with the claimed relationship between the elongation of the elastic web incorporated in the composite material and the elongation of the composite material, as discussed above.

The stretchable composite material of Vander Wielen does not have a composite material that stretches to at least about 85% of the elongation of its component elastic web. The disclosure of Vander Wielen discussed above merely discloses a composite multilayer structure with an elongation of 100% made from an elastic web stretched to 120% elongation. Vander Wielen at col. 9, lines 40-43; Office Action at page 9. Therefore, the maximum elongation of this composite (i.e., 100%) is 83% (i.e., $100\%/120\%$) of the elongation of the elastic web (i.e., 120%) and the composite does not have a maximum elongation of “at least about 85%” of the elongation of the elastic web. Accordingly, Vander Wielen does not teach a composite having the claimed maximum elongation of at least about 85% of the elongation of its elastic member.

Since Vander Wielen does not teach the composite of the instant invention, Applicants respectfully request that this rejection be withdrawn.

The Office Action also recites that certain prior art references do not “explicitly teach the limitations [sic.] the maximum elongation of the composite is at least about 95% of the elongation of an elastic member...” but that 95% elongation is either “inherent” in or suggested by certain prior art references. Office Action at page 7 (lines 3-4), page 8 (lines 5-6), page 8 (lines 19-20) and page 9 (lines 21-22). Applicants respectfully assert that this

recitation of the Office Action improperly suggests that the recitation of “elongation of an elastic member” refers to the maximum elongation of the elastic member *while* the composite is being stretched, rather than the claimed ratio of the elongation of an elastic member with reference to the maximum elongation of the composite. In other words, (1) an elongated elastic member includes a certain maximum elongation (i.e., the elongation of the elastic member(s)), (2) the composite also has a maximum elongation (i.e., the composite elongation between being fully relaxed (unstretched) and fully extended (stretched)), and (3) the present invention claims that the ratio of the maximum composite elongation to the maximum elongation of the elastic member(s) is at least about 85%.

CLAIM REJECTIONS

1. Claims 2 and 3 stand rejected under 35 U.S.C. § 112, second paragraph

The Office Action rejected claims 2 and 3 under 35 USC § 112, second paragraph as being indefinite. With respect to both the term “slightly” in claim 2 and the term “roughly” in claim 3, the Office Action states that these terms are each “a relative term and renders the claims vague and indefinite.” Office Action at page 3. The Office Action further asserts that each term “is held indefinite because the specification lacks a standard for measuring the degree intended.” Office Action at page 3.

Applicants respectfully assert that these rejections are improper because the recitation of the claim feature “slightly” in claim 2 and the claim feature “roughly” in claim 3 are not indefinite when claims 2 and 3, respectively, are read as a whole in light of the specification by one of ordinary skill in the art. Definiteness of claim language is analyzed in light of the content of a patent application, the teachings of the prior art and the claim interpretation given by one possessing an ordinary level of skill in the art at the time the invention was made. MPEP § 2173.02. Claim language must be “as precise as the subject matter permits.” *Shatterproof Glass Corp. v. Libbey-Owen Ford Co.*, 758 F.2d 613, 624, 225 U.S.P.Q. 634, 641 (Fed. Cir. 1985). Neither express definition nor mathematical precision of all claim terms is required for a claim to be definite under 35 U.S.C. § 112, second paragraph. *Modine Mfg. Co. v. United States Int’l Trade Comm.*, 75 F.3d 1545, 1577, 37 U.S.P.Q.2d 1609, 1617 (Fed.

Cir. 1996).

The terms “slightly” in claim 2 and “roughly” in claim 3 are adequately defined by the specification, as read by one of ordinary skill in the art.

First, the recitation of “slightly” in claim 2 and of “roughly” in claim 3 does not render these claims indefinite because the specification, read in light of the knowledge of one skilled in the art, provides adequate teaching for one skilled in the art to understand the metes and bounds of claims 2 and 3, respectively. MPEP 2173.05(a). The specification teaches, for example at page 4, lines 25-29, an embodiment of the present invention wherein a series of elastic strands are incorporated in a composite material such that the strands “run parallel, [or] *slightly out of parallel*, so as not to intersect in between the two layers, or substantially out of parallel so as to intersect between the two layers.” Specification at page 4 (emphasis added). The specification also describes an apparatus and process that can be used to make certain composite material embodiments of the embodiments (Specification at pages 8-18), wherein the spatial arrangement of one or more elastic strands in the strand array can be varied by canting the pins on the pin-carrying conveyor (Specification at pages 14-15). Composite materials comprising multiple or single elastic strands, evenly or unevenly spaced apart, can be made according to the invention. Specification at page 17, line 27 – 18, line 13; Figures 20a-e. Furthermore, the specification teaches an embodiment in Example 4 of a stretchable composite comprising elastic strands that are “*roughly parallel*.” Specification at page 21, lines 7-8 (emphasis added). The teachings of the specification provide explicit definitions, examples and describe embodiments that enable one of skill in the art to understand the metes and bounds of “slightly out of parallel” and “roughly parallel” in the invention as claimed, for example in claims 2 and 3.

One of ordinary skill in the art would understand the metes and bounds of the terms “slightly” in claim 2 and “roughly” in claim 3, as evidenced by the prior art in the art.

Second, the recitation of “slightly out of parallel” in claim 2 and “roughly parallel” in claim 3 do not render the claims because they are as precise as the subject matter permits, as

exemplified by language used in other prior art patents. Evidence of prior art using words or claim limitations similar to the claim terms at issue illustrates that the claim limitations at issue are as precise as the art permits. *Andrew Corp. v. Gabriel Electronics, Inc.*, 847 F.3d 696, 48 U.S.P.Q.2d 1880 (Fed. Cir. 1998). The phrase “slightly out of parallel” was in use in the art at the time of the present invention. For example, col. 2, lines 64-66 of U.S. Patent 5,209,801 to Smith recites, “[t]he nonintersecting elastic strands are typically configured so that they are *slightly out of parallel*...” (emphasis added). Although the teachings of Smith do not disclose the instant invention, one skilled in the art would recognize the recitation of “slightly out of parallel” in the present invention as being as precise as the subject matter allowed, and be able to interpret it in light of the specific teachings of the instant patent application specification.

For at least these reasons, Applicants respectfully request that the 35 U.S.C. § 112 rejection of claims 2 and 3 be withdrawn.

2. Claims 1, 3, 5-9, 15, 17, 18 and 48-50 stand rejected under 35 U.S.C. § 102(b)

The Office Action rejected claims 1, 3, 5-9, 15, 17, 18 and 48-50 as anticipated under 35 USC § 102(b) by U.S. Patent No. 3,371,668 to Johnson (“Johnson”). Specifically, the Office Action asserts in relevant part:

In construction the [sic.] elastic strands in the laminate have been tensioned sufficiently during manufacture to permit 100% extension of the finished fabric, i.e. after bonding of the sandwiched strands, which are extended to a little better than twice their original length; release of tension provides a buckled fabric which, in this instance, can be extended to twice its length (col. 4, lines 55-61). Office Action at page 4.

Applicants respectfully assert that Johnson does not anticipate the instant invention because Johnson does not teach or suggest at least the “maximum elongation of at least about 85% of the elongation of the elastic member” claim feature of independent claims 1 and 48 as amended herein, or of claims that depend on claim 1 and claims that depend from claim 48, of the instant invention. Dependent claims include all the limitations of the claims on which they depend. 35 U.S.C. § 112, ¶4 (2002); 37 C.F.R. § 1.75(c); MPEP 608.01(i).

Without conceding the validity of this rejection, Applicants have chosen to amend the claims to facilitate prosecution of the instant application. Accordingly, claim 48 has been amended to include the “at least about 85%” claim limitation.

Johnson teaches a composite fabric made from elastic strands that are held under sufficient tension to provide at least 15% strand elongation while the composite is made. Johnson at col. 1, lines 64-66. To make a composite fabric of Johnson that has a 100% elongation, Johnson teaches elongation of the elastic strands included in the composite fabric to “a little better than twice their original length.” Johnson at col. 4, lines 55-61. In contrast, the composite materials claimed in claims 1, 3, 5-9, 15, 17, 18 and 48-50 can achieve 100% composite elongation with an elastic elongation of 118% or less (i.e., a 100% composite elongation is 85% of the 118% elastic elongation). Johnson does not teach or suggest the claimed composites of the instant invention. For example, Johnson teaches that a composite fabric capable of 100% maximum elongation requires elastic strands having an elongation of “a little better than” 200%, rather than 118% or less, as taught by the instant invention. Thus, Johnson does not disclose or suggest the claimed composite material having a maximum elongation of at least about 85% of the elongation of the elastic members.

Accordingly, Applicants respectfully request that this rejection be withdrawn.

3. Claims 48-50 stand rejected under 35 U.S.C. § 102(b)

The Office Action rejected claims 48-50 as anticipated under 35 USC § 102(b) by U.S. Patent No. 5,209,801 to Smith (“Smith”). Specifically, the Office Action asserts in relevant part:

The structure is achieved by forming a layer of nonintersecting elastic strands, tensioning the strands, positioning the tensioned strands between two layers of breathable material, joining the layers together, and releasing the tension in the strands and thereby permitting them to contract and draw the outer layers into pleats or shears. The nonintersecting elastic strands are typically configured so that they are slightly out of parallel and/or nonuniformly tensioned so as to cause the pleats to form slightly irregularly. See col. 2, lines 53-68. ...The nonintersecting elastic strands can either be a plurality of strands or a single strand made of Lycra. (col. 3, lines 51-60 and figures 1 and 6). Office Action at pages 4-5.

The Office Action later notes that, “Smith does not explicitly teach the limitations the [sic.] maximum elongation of the composite is at least about 95% of the elongation of an elastic member.” Office Action at page 8, lines 19-20.

Applicants respectfully assert that Smith does not anticipate the claims of the instant invention because Smith does not teach or suggest the “maximum elongation of at least about 85% of the elongation of the elastic member” claim feature of independent claim 48 as amended herein, or of dependent claims 49-50. Dependent claims include all the limitations of the claims on which they depend. 35 U.S.C. § 112, ¶4 (2002); 37 C.F.R. § 1.75(c); MPEP 608.01(i).

Without conceding the validity of this rejection, Applicants have chosen to amend the claims to better define the invention and to facilitate prosecution of the instant application. Accordingly, claim 48 has been amended to include the “at least about 85%” claim limitation.

Smith teaches a layered structure made from elastic strands that are held under tension while the composite is made. Smith at col. 2, lines 59-60. Smith teaches that elastic strands can be “tensioned” while the layered structure is made, for example while an adhesive is applied, and then the tension in the strands released to form the final layered structure. Smith at col. 5, lines 7-16; col. 5, lines 55-66. Smith also teaches that tensioning of the strands can be varied to change the elastic properties of the layered structure. Smith at col. 6, lines 3-6. However, Applicants can find no teaching or suggestion in Smith as to *how much* the elastic strands of the layered material are stretched, or whether there is any correlation between the amount the elastic strands are stretched and the maximum elongation of the layered structure.

In contrast, as discussed above, the present invention teaches a correlation between the elongation of the elastic strand and the maximum elongation of the composite material comprising that strand.

Accordingly, Applicants respectfully request that this rejection be withdrawn.

4. Claims 48-50 stand rejected under 35 U.S.C. § 102(e)

The Office Action rejected claims 48-50 as anticipated under 35 USC § 102(e) by U.S. Patent No. 5,706,524 to Herrin (“Herrin”). Specifically, the Office Action asserts in relevant

part:

The elastic strips are secured to the first and second elongate layer in stretched condition and gathers are formed in the first and second layer when the elastic strips are relaxed. Office Action at page 5.

Applicants respectfully traverse this rejection. Herrin does not anticipate the instant invention because Herrin does not teach or suggest at least the “maximum elongation of at least about 85% of the elongation of the elastic member” claim feature of independent claim 48 as amended herein, or of dependent claims 49-50. Dependent claims include all the limitations of the claims on which they depend. 35 U.S.C. § 112, ¶4 (2002); 37 C.F.R. § 1.75(c); MPEP 608.01(i).

Without conceding the validity of this rejection, Applicants have chosen to amend the claims to better define the invention and to facilitate prosecution of the instant application. Accordingly, claim 48 has been amended to include the “at least about 85%” claim feature.

Herrin teaches an undergarment waistband made from a first layer and a second layer that are combined with a plurality of stretched elongate elastic strips, wherein the tension in the plurality of elastic strips can be relaxed after the waistband is assembled so as to form a plurality of gathers in the first and second layers. Herrin at col. 3, lines 61-62; col. 4, lines 21-26. Herrin teaches that the elastic strips can be adhered to the first and second layers in an “extended position, so that when released to the retracted or relaxed position, the waistbands have a plurality of gathers formed therein.” Herrin at col. 8, lines 44-48. However, Applicants can find no teaching or suggestion in Herrin as to *how much* the elastic strands of the layered material are stretched, or whether there is any correlation between the amount the elastic strands are stretched and the maximum elongation of the layered structure.

In contrast, as discussed above, the present invention teaches a correlation between the elongation of the elastic strand and the maximum elongation of the composite material comprising that strand.

Accordingly, Applicants respectfully request that this rejection be withdrawn.

5. (a) Claims 1, 2, 4, 6-9, 15, 17 and 18 stand rejected under 35 U.S.C. § 102(b) or, (b) alternatively, under 35 U.S.C. § 103(a)

The Office Action rejected claims 1, 2, 4, 6-9, 15, 17 and 18 as anticipated under 35 U.S.C. § 102(b) or, in the alternative, as obvious over Smith under 35 U.S.C. § 103(a).

Specifically, the Office Action asserts in relevant part:

The structure is achieved by forming a layer of nonintersecting elastic strands, tensioning the strands, positioning the tensioned strands between two layers of breathable material, joining the layers together, and releasing the tension in the strands and thereby permitting them to contract and draw the outer layers into pleats or shears. The nonintersecting elastic strands are typically configured so that they are slightly out of parallel and/or nonuniformly tensioned so as to cause the pleats to form slightly irregularly. See col. 2, lines 53-68. ...The nonintersecting elastic strands can either be a plurality of strands or a single strand made of Lycra. (col. 3, lines 51-60 and figures 1 and 6)... Office Action at page 6.

Although Smith does not explicitly teach the limitations the [sic.] maximum elongation of the composite is at least about 95% of the elongation of an elastic member, it is reasonable to presume that said limitations are inherent to the invention. Support for said presumption is found in the use of similar materials (i.e. Lycra strands sandwiched between breathable webs) and in the similar production steps (i.e. tensioning the elastic strands when bonding to the breathable webs) used to produce the elastic structure. The burden is on the Applicants to prove otherwise. *In re Fitzgerald*, 205 U.S.P.Q. 594. In the alternative, the claimed elongation would obviously have been provided by the process disclosed by Smith. Note *In re Best*, 195 U.S.P.Q. 433, footnote 4 (CCPA 1977) as to the providing of this rejection under 35 USC 103 in addition to the rejection made above under 35 USC 102. Office Action at page 7.

Applicants respectfully traverse this rejection because Smith does not teach or suggest at least the feature that the “maximum elongation of at least about 85% of the elongation of the elastic member” recited in independent claim 1, and in all the claims dependent therefrom.

Applicants can find no teaching of Smith that teaches or suggests the instant invention. The teachings of Smith are discussed above. Applicants can find no teaching or suggestion in Smith as to *how much* the elastic strands of the layered material are stretched, or whether there

is any correlation between the amount the elastic strands are stretched and the maximum elongation of the layered structure.

In contrast, as discussed above, the present invention teaches a correlation between the elongation of the elastic strand and the maximum elongation of the composite material comprising that strand.

Accordingly, Applicants respectfully request that this rejection be withdrawn.

**6. (a) Claims 1, 3 and 5-18 stand rejected under 35 U.S.C. § 102(b) or,
(b) alternatively, under 35 U.S.C. § 103(a)**

The Office Action rejected claims 1, 3 and 5-18 as anticipated under 35 U.S.C. § 102(b) or, in the alternative, as obvious under 35 U.S.C. § 103(a) over Herrin. Specifically, the Office Action asserts in relevant part:

The elastic strips are secured to the first and second elongate layer in stretched condition and gathers are formed in the first and second layer when the elastic strips are relaxed... . Office Action at page 7.

The Office Action continues:

Although Herrin does not explicitly teach the limitations the [sic.] maximum elongation of the composite is at least about 95% of the elongation of an elastic member, it is reasonable to presume that said limitations are inherent to the invention. Support for said presumption is found in the use of similar materials (i.e. elastic strands sandwiched between breathable webs) and in the similar production steps (i.e. tensioning the elastic strands when bonding to the non-elastic webs) used to produce the elastic structure. The burden is on the Applicants to prove otherwise. *In re Fitzgerald*, 205 U.S.P.Q. 594. In the alternative, the claimed elongation would obviously have been provided by the process disclosed by Smith. Note *In re Best*, 195 U.S.P.Q. 433, footnote 4 (CCPA 1977) as to the providing of this rejection under 35 USC 103 in addition to the rejection made above under 35 USC 102. Office Action at page 8.

Applicants respectfully traverse this rejection because Herrin does not teach or suggest at least the “maximum elongation of at least about 85% of the elongation of the elastic member” claim feature of independent claim 1 as amended herein, or of claims dependent

therefrom.

Applicants can find no teaching of Herrin that teaches or suggests the instant invention. The teachings of Herrin are discussed above. Applicants can find no teaching or suggestion in Herrin as to *how much* the elastic strands of the layered material are stretched, or whether there is any correlation between the amount the elastic strands are stretched and the maximum elongation of the layered structure.

In contrast, as discussed above, the present invention teaches a correlation between the elongation of the elastic strand and the maximum elongation of the composite material comprising that strand.

Accordingly, Applicants respectfully request that this rejection be withdrawn.

7. Claims 1, 2, 4, 6-9, 15, 17 and 18 stand rejected under 35 U.S.C. § 103(a)

The Office Action rejected claims 1, 2, 4, 6-9, 15, 17 and 18 as being obvious under 35 U.S.C. § 103(a) over Smith in view of U.S. Patent No. 4,720,415 to Vander Wielen et al. (“Vander Wielen”). Office Action at pages 8-9.

Applicants respectfully assert that Smith does not render the instant invention obvious in light of Vander Wielen because neither reference teaches or suggests the “maximum elongation of at least about 85% of the elongation of the elastic member” claim feature of independent claim 1 as amended herein, or of claims dependent therefrom.

Applicants can find no teaching of Smith that, alone or in combination with Vander Wielen, teaches or suggests the instant invention. The teachings of Smith are discussed above, and portions of the Office Action’s assertions respecting Vander Wielen and Smith are both discussed above.

Briefly, Applicants can find no teaching or suggestion in Smith as to *how much* the elastic strands of the layered material are stretched, or whether there is any correlation between the amount the elastic strands are stretched and the maximum elongation of the layered structure.

Vander Wielen teaches a composite elastic material made from an elastic web held under at least about 25% elongation while the composite is made. Vander Wielen at col. 2, lines 40-58. To make a composite fabric of Vander Wielen that has a 100% elongation,

Vander Wielen teaches elongation of the elastic web included in the composite elastic material to 120%. Vander Wielen at col. 9, lines 32, 43. In contrast, the composite materials claimed, for example, in claims 1, 2, 4, 6-9, 15, 17 and 18 can achieve 100% composite elongation with an elastic elongation of 118% or less (i.e., a 100% composite elongation is 85% of the 118% elastic elongation). Thus, Vander Wielen does not teach or suggest the claimed feature that the composite material has a minimum elongation of at least about 85% of the elongation of the elastic members.

In contrast, as discussed above, the present invention teaches a correlation between the elongation of the elastic strand and the maximum elongation of the composite material comprising that strand.

Accordingly, Applicants respectfully request that this rejection be withdrawn.

8. Claims 1, 3 and 5-18 stand rejected under 35 U.S.C. § 103(a)

The Office Action rejected claims 1, 3 and 5-18 as being obvious under 35 U.S.C. § 103(a) over Herrin in view of Vander Wielen. Office Action at pages 9-10.

Applicants respectfully assert that Herrin does not render the instant invention obvious in light of Vander Wielen because neither reference teaches or suggests the “maximum elongation of at least about 85% of the elongation of the elastic member” claim feature of independent claim 1, or of dependent claims 3 and 5-18.

Applicants can find no teaching of Herrin that, alone or in combination with Vander Wielen, teaches or suggests the instant invention. The teachings of Herrin are discussed above, and portions of the Office Action’s assertions respecting Vander Wielen and Herrin are both discussed above as well. Briefly, Applicants can find no teaching or suggestion in Herrin as to *how much* the elastic strands of the layered material are stretched, or whether there is any correlation between the amount the elastic strands are stretched and the maximum elongation of the layered structure.

Vander Wielen teaches a composite elastic material made from an elastic web held under at least about 25% elongation while the composite is made. Vander Wielen at col. 2, lines 40-58. To make a composite fabric of Vander Wielen that has a 100% elongation, Vander Wielen teaches elongation of the elastic web included in the composite elastic

material to 120%. Vander Wielen at col. 9, lines 32, 43. In contrast, the composite materials claimed in claims 1, 3 and 5-18 can achieve 100% composite elongation with an elastic elongation of 118% or less (i.e., a 100% composite elongation is 85% of the 118% elastic elongation). Vander Wielen does not teach or suggest the composites of the instant invention.

In contrast, as discussed above, the present invention teaches a correlation between the elongation of the elastic strand and the maximum elongation of the composite material comprising that strand.

Accordingly, Applicants respectfully request that this rejection be withdrawn.

9. Claims 2 and 4 stand rejected under 35 U.S.C. § 103(a)

The Office Action rejected claims 2 and 4 as being obvious under 35 U.S.C. § 103(a) over Johnson or Herrin in view of Smith. Specifically, the Office Action asserts in relevant part:

Both Johnson and Herrin disclose all the limitations of the instant claimed invention except for the elastic members are slightly out of parallel and the elastic members comprise a single strand...

It would have been obvious to one of ordinary skill in the art to make the elastic strands of either Johnson or Herrin slightly out of parallel and/or with one strand as taught by Smith because the effect of having the pleats form slightly irregularly reduces folds that can pinch the skin or pull hairs. Office Action at pages 11-12.

Applicants respectfully assert that neither Johnson nor Herrin, nor the combination thereof, renders the instant invention obvious in light of Smith because none of these references teaches or suggests the “maximum elongation of at least about 85% of the elongation of the elastic member” claim feature of dependent claims 2 and 4.

As discussed above, Johnson does not teach or suggest the composites of the instant invention. Applicants can find no teaching or suggestion in Herrin as to *how much* the elastic strands of the layered material are stretched, or whether there is any correlation between the amount the elastic strands are stretched and the maximum elongation of the layered structure. The teachings of Herrin are further discussed above.

Likewise, Applicants can find no teaching of Smith that teaches or suggests the instant

invention. The teachings of Smith are further discussed above. Applicants can find no teaching or suggestion in Smith as to *how much* the elastic strands of the layered material are stretched, or whether there is any correlation between the amount the elastic strands are stretched and the maximum elongation of the layered structure.

In contrast, as discussed above, the present invention teaches a correlation between the elongation of the elastic strand and the maximum elongation of the composite material comprising that strand.

Accordingly, Applicants respectfully request that this rejection be withdrawn.

10. Claims 10-14 and 16 stand rejected under 35 U.S.C. § 103(a)

The Office Action rejected claims 10-14 and 16 as obvious under 35 U.S.C. § 103(a) over Johnson in view of U.S. Patent 5,843,066 to Dobrin (“Dobrin”). Office Action at page 12.

Applicants respectfully assert that Johnson does not render the instant invention obvious either alone, or in combination with Dobrin, because neither of these references teaches or suggests the “maximum elongation of at least about 85% of the elongation of the elastic member” claim feature of, for example, claims 10-14 and 16.

As discussed above, Johnson does not teach or suggest the composites of the instant invention. Johnson teaches that a composite fabric capable of 100% maximum elongation requires elastic strands having an elongation of “a little better than” 200%, rather than 118% or less, as taught by the instant invention.

Dobrin teaches an absorbent article comprising a breathable backsheet (Dobrin at col. 1, lines 51-53), such that the absorbent article can also include elasticized leg cuffs made from one or more elastic strands (Dobrin at col. 11, lines 37-39) and an elasticized waistband (Dobrin at col. 11, lines 58-61). Dobrin provides no teaching on the amount of elongation of the absorbent article or of the elasticized portions thereof.

In contrast, as discussed above, the present invention teaches a correlation between the elongation of the elastic strand and the maximum elongation of the composite material comprising that strand.

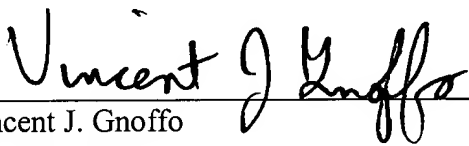
Accordingly, Applicants respectfully request that this rejection be withdrawn.

CONCLUSION

Applicants respectfully assert that the claimed invention is not anticipated or obvious over the cited references, alone or in combination. Accordingly, these rejections should be withdrawn and the pending claims allowed.

Should the Examiner feel that an Interview may expedite the resolution of these matters or other formalities, he is kindly requested to contact the undersigned attorney.

Respectfully submitted,

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Appendix: Complete Claims showing amendments

(with additions underlined and deletions in brackets)

1. A stretchable composite material comprising:
 - a) a first layer;
 - b) a second layer;
 - c) [a plurality of]at least one elongated elastic member[s];
 - d) the elastic members located between the first and second layers and being in contact with the first and second layers;
 - e) regions of securement securing the elastic members, first and second layers; and
 - f) the stretchable composite material having a maximum elongation of at least about 85% of the elongation of [an]the elastic member.
2. The composite material of claim 1 in which the elastic members are slightly out of parallel.
3. The composite material of claim 1 in which the elastic members are roughly parallel.
4. The composite material of claim 1 in which the plurality of elastic members is comprised of a single strand.
5. The composite material of claim 1 in which the regions of securement are approximately the same size and are spaced approximately equally apart from each other.
6. The composite material of claim 1 in which the maximum elongation of the composite is at least about 90% of the elongation of an elastic member.

7. The elastic composite material of claim 1 in which the maximum elongation of the composite is at least about 95% of the elongation of an elastic member.
8. The composite material of claim 1 further comprising at least one stiffened edge.
9. The composite material of claim 1 wherein the first layer further comprises a breathable material.
10. The composite material of claim 1 wherein the first layer further comprises a non-breathable material.
11. The composite material of claim 10 wherein the second layer further comprises a breathable material.
12. The composite material of claim 10 wherein the second layer further comprises a non-breathable material.
13. The composite material of claim 10 wherein the second layer further comprises a non-breathable material.
14. The composite material of claims 1, 9, or 10 wherein the first layer further comprises a water impervious material.
15. The composite material of claims 1, 9, or 10 wherein the first layer further comprises a water pervious material.
16. The composite material of claims 1, 11, or 12 wherein the second layer further comprises a water impervious material.
17. The composite material of claims 1, 11, or 12 wherein the second layer further comprises a water pervious material.

18. The composite material of claim 1 further comprising zones of attachment.

19. A stretchable elastic composite comprising a first layer, a second layer, and a plurality of elastic members; the composite further having a machine direction and a cross-machine direction; the length of the elastic members being roughly transverse to the machine direction; zones of attached elastics interspersed between zones of unattached elastics; the zones of attached elastics being roughly parallel to the machine direction of the composite; the zones of attached elastics extending across at least two of the elastic members; and the composite having pleats that are roughly parallel to the machine direction and extend across at least two of the elastic members.

20. The composite material of claim 19 wherein the first layer further comprises a breathable material.

21. The composite material of claim 19 wherein the first layer further comprises a non-breathable material.

22. The composite material of claim 20 wherein the second layer further comprises a breathable material.

23. The composite material of claim 21 wherein the second layer further comprises a non-breathable material.

24. The composite material of claim 19, 20, or 21 wherein the second layer further comprises a non-breathable material.

25. The composite material of claim 19, 20, or 21 wherein the first layer further comprises a water impervious material.

26. The composite material of claim 19, 20, or 21 wherein the first layer further comprises a water pervious material.

27. The composite material of claim 19, 22, or 23 wherein the second layer further comprises a water impervious material.
28. The composite material of claim 19, 22, or 23 wherein the second layer further comprises a water pervious material.
29. The composite material of claim 19 in which the composite material at the zones of attached elastic exhibit no elasticity.
30. The composite materials of claim 19 in which the composite material at the zones of attached elastic exhibit minimal elasticity.
31. The composite materials of claim 19 in which the zones of attached elastic extend across the majority of the elastic members.
32. The composite materials of claim 19 in which the zones of attached elastic further comprise an adhesive.
33. The composite materials of claim 19 in which the pleats extend across a majority of the elastic members.
34. The composite material of claim 19, further having at least one stiffened edge.
35. A stretchable elastic composite comprising a first layer, and an elastic material; the composite further having a length and width; the elastic material further having a length and a width; the length of the elastic material being roughly transverse to the length of the composite; regions of securement interspersed across the width of the elastic composite and roughly parallel to the length of the composite; the regions of securement extending across the elastic material; the composite having pleats that are roughly parallel to the length of the composite and that extend across a majority of the elastic material; and the composite having a maximum elongation in the widthwise dimension of the composite of at least about 85% of the elongation of the elastic material.

36. The composite material of claim 35 in which the maximum elongation of the composite is at least about 90% of the elongation of the elastic material.

37. The composite material of claim 35 in which the maximum elongation of the composite is at least about 95% of the elongation of the elastic material.

38. The composite material of claim 35 wherein the first layer further comprises a breathable material.

39. The composite material of claim 35 wherein the first layer further comprises a non-breathable material.

40. The composite material of claim 35, further comprising a second layer wherein the second layer further comprises a breathable material.

41. The composite material of claim 35, further comprising a second layer wherein the second layer further comprises a non-breathable material.

42. The composite material of claim 38, further comprising a second layer wherein the second layer further comprises a non-breathable material.

43. The composite material of claim 35, 38, or 39 wherein the first layer further comprises a water impervious material.

44. The composite material of claim 35, 38, or 39 wherein the first layer further comprises a water pervious material.

45. The composite material of claim 40, 41, or 42 wherein the second layer further comprises a water impervious material.

46. The composite material of claim 40, 41, or 42 wherein the second layer further comprises a water pervious material.

47. The composite material of claim 35 further comprising zones of attachment.

48. (Amended) A stretchable composite material comprising: a first layer, the first layer being a breathable material; a second layer, the second layer being a breathable material; at least two elastic members, the elastic members positioned in between the first and second layers; regions of securement securing the elastic members, the first layer and the second layer; the regions of securement further comprising attached zones; the attached zones extending traverse and across a majority of the elastic members; wherein the stretchable composite material has a maximum elongation of at least about 85% of the elongation of the elastic members.

49. The composite material of claim 48 further comprising a stiffened edge.

50. An article of apparel comprising the composite material of claims 1, 19, 35 or 48.